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DOMINICA.

ANNUAL REPORT

OF THE

Department of Agriculture

FOR THE YEAR

1948.

28 DEC 1951

Printed at the BULLETIN OFFICE, Roseau, Dominica, B W I.

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REPORT ON THE WORK OF THE

DEPARTMENT OF AGRICULTURE

FOR THE YEAR

1948.

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ANNUAL REPORT

OF THE

DEPARTMENT OF AGRICULTURE

DOMINICA.

1948.

PREFACE

Summary of progress made in implementing the Agricultural Policy of Government.

I. *Conservation of natural resources.*

(i) To protect, manage, control the use of and improve all forest areas prescribed in accordance with the advice of the various Government Departments.

During the period under review, it was not possible to enforce the Forest, Soil and Water Conservation Ordinance. Approval for the Forest Scheme to provide necessary staff and services was received in December, and it is anticipated that the Forest Service will be organised within the first six months of next year. Details of this scheme are recorded in Appendix V.

(ii) To encourage the proper use of land by the adoption and practice of systems of agriculture which will conserve the soil and improve its fertility by

(*a*) advising as to the allocation of production in accordance with the findings of a soil survey;

(*b*) the investigation and demonstration of suitable systems of agriculture in the varying ecological systems of the island.

(*a*) is outside the scope of the Local Department, and will be under the direction of the Professor of Soil Science at the Imperial College of Tropical Agriculture. Unfortunately, no developments affecting Dominica can yet be reported. Preliminary work in accordance with (*b*) has been continued on the Agricultural Stations.

II. *Security of Land Tenure.*

(i) To provide the means of regularising systems of land tenure for the protection of both the landlord and the tenant, and the conservation of the soil by the enactment of appropriate legislation. It has not yet been possible to take any action in this connection.

III. *The maintenance and wherever economically practicable the expansion and improvement of crop production for export to the world's markets.*

(i) To render advice, guidance, and such other forms of assistance as may be practicable in the production of staple commodities for export to the world's market by

(*a*) scientific investigation;

(*b*) distribution (within practical limits) of selected plant material;

(*c*) the demonstration of suitable cropping methods ;

(*d*) the provision of technical advice in methods of processing ;

(*e*) the operation of a marketing organisation when this is necessary in the general interests of the community.

Investigational work in the course of the year included two Sugar Cane variety trials, and manurial trials on Vanilla with special reference to root disease.

Improved plant material in the form of budded limes, oranges, grapefruit, grafted mangoes and pears, nutmegs, dwarf coconuts and other economic plants were distributed from the Botanic Gardens and Agricultural Stations.

The Government Marketing Depot was in operation during the year, and the Marketing Agency jointly operated by the Government of St. Lucia and Dominica which was set up last year, continued on a trial basis to market fruit, vegetables and basketware.

IV. *The improvement of small scale (or peasant) agriculture.*

(i) To encourage the abandonment of the undesirable and wasteful systems of hifting cultivation commonly practised by small cultivators.

(ii) To encourage and to assist small cultivators to establish and maintain themselves under a permanent system of agriculture by

(*a*) the demonstration of permanent systems of small scale agriculture ;

(*b*) facilitating whenever possible the provision of land to small cultivators for the practice of approved systems of agriculture ;

(*c*) affording assistance whenever possible in the construction of houses and roads, and the provision of water supply and other social amenities.

These objectives are dependent upon a land settlement scheme, and so far it has not been possible to make provision for such a scheme.

V. *Stability of farming and improvement of food supply.*

(i) To encourage the practice of more stable systems of agriculture by the operation of Agricultural Stations in various parts of the island for the purpose of investigation and demonstrating methods of crop diversification, systems of crop rotation in short term cropping, mixed farming, the care and management of livestock, the preparation of pen manure and the use of chemical manures, the preparation and grading of produce for market.

The five Agricultural Stations previously established were maintained during the year. Activities were, however, necessarily restricted by the funds available and shortage of staff. Approval was received late in the year for Scheme D 1052 which makes provision for the maintenance of these stations until 1956. Details of these schemes are recorded in Appendix VI.

(ii) To urge the increased home production of the basic food requirements of the people by

(*a*) the distribution of suitable varieties of the more important food crops ;

(*b*) the demonstration of methods of producing food crops suitable for the preparation of a balanced diet ;

(*c*) encouraging the rearing of livestock and the greater consumption of animal products ;

(*d*) the demonstration of clean milk production ;

(*e*) assisting in the organisation of marketing and storage of food crops ;

(*f*) the introduction of protective tariffs for selected food crops or animal products whenever such action would be in the general interests of the community.

Planting material of food crops including European vegetables were available at Agricultural Stations. Stud animals were maintained at stations to improve and increase local

livestock, and thus increase animal food available for consumption. It has not been possible to implement (*d*) and (*e*) whilst there was no need for (*f*).

VI. *Efficiency in the operations of production, processing and distribution of agricultural products.*

(i) To encourage the practice of efficient methods of production, processing and distribution of agricultural products

(*a*) the teaching of crop and animal husbandry in the schools ;

(*b*) the provision of facilities for training agricultural instructors, overseers and a nucleus of small farmers ;

(*c*) the demonstration of approved methods of agricultural production and livestock management ;

(*d*) the provision of facilities for obtaining agricultural credit ;

(*e*) the provision of technical advice in methods of processing ;

(*f*) the encouragement of the formation and operatien of co-operative organisations of producers ;

(*g*) the adoption of measures to reduce the common practice of prædial larceny, and ultimately to eradicate the evil.

No action has been possible with regard to (*a*), (*d*), (*e*), (*f*) and (*g*).

The fundamental importance of (*b*) has been recognised. Unfortunately, however, it has not proved possible to make provision for the scheme in the 10 Year Practical Plan. The matter should not be allowed to rest there, as this is a project which the island cannot afford to do without.

PART I.

AGRICULTURE IN THE COLONY.

WEATHER CONDITIONS.

General Climatic Conditions.—According to the rainfall data received from the various stations, 1948 proved to be wetter than the preceding year. The meteorological data for the year is summarised in Appendix VI and observations are recorded below :—

(*a*) **Rainfall.**—Returns for 22 stations and monthly rainfall for the Botanic Gardens from 1929–1948 are shown in the Appendix V. At the Botanic Gardens precipitation for the months of June, July, August, September and November was above average. Average falls were recorded for December, and below average for January, February, March, Apri and May. Annual precipitation was 79 46 compared with 72.20 last year and a 20 year average of 78.78.

(*b*) **Barometer.**—The highest reading recorded was 30.11 inches on 12th February, and the lowest was 29.81 inches on 22nd October, and 4th and 23rd November.

(*c*) **Temperature.**—The highest maximum temperature recorded was 91° F on 27th April, and on the 2nd, 3rd, 4th, 9th and 11th June, and the lowest minimum 64° F on the 26th, 27th and 28th February.

PRODUCTION AND EXPORTS.

Export statistics for the past six years are shown in the following table :—

AGRICULTURAL EXPORTS — DOMINICA, 1943-45.

		1943.		1944.		1945.	
		Quantity.	F.O.B. Value $	Quantity.	F.O.B. Value $	Quantity.	F.O.B. Value $
Lime Products:							
Concentrated Juice,	galls.	15,985	6,100.80	2,673	1,051.20	50	19.20
Raw Juice,	galls.	152,429	36,388.80	189,415	92,678.40	317,318	160,963.20
Lime Juice, Cordial	,,	—	—	—	—	—	—
Distilled Oil,	lbs.	33,126	224,659.20	40,706	275,452.80	19,745	159,921.60
Ecuelled Oil,	,,	960	10,708.80	1,739	20,467.20	3,747	49,526.40
Oils in Solution,	,,	—	—	—	—	1,582	12 297.60
Green Limes,	brls.	605	3,628.80	499	2,515.20	727	3,960.00
Pickled Limes,	,,	—	—	—	—	—	—
			281,486.40		392,164.80		386,688.00
Other Fruits and Allied Products:							
Oranges,	C/crates	8,906	16,915.20	9,912	34,958.40	9,326	24,763.20
Orange Oil,	lbs.	1,703	5,904.00	883	2,980.80	720	3,408.00
Grapefruit,	C/crates	5,243	8,640.00	7,572	16,804.80	7,264	19,641.60
Grapefruit Juice,	galls.	—	—	—	—	—	—
Grapefruit, Oil	lbs.	—	—	—	—	—	—
Bananas,	bunches	4,223	2,025.60	4,047	1,891.20	4,132	1,651.20
Mangoes,	C/crates	3,982	5,611.20	3,958	5,832.00	3,294	3,960.00
Avocado Pears,	T/crates	868	676.80	715	571.20	3,360	2,620.80
Miscellaneous	val	—	8,428.80	—	13,545.60	—	22,833.60
			48,201.60		76,584.00		78,878.40
Cocoa Products:							
Cocoa, Raw	lbs.	401,819	33,408.00	332,520	35,174.40	296,788	33,446.40
Cocoa, Prepared	lbs.	1,777	369.60	256	72.00	64	9.60
			33.777.60		35.246,40		36.456.00
Coconut Products:							
Copra,	lbs.	591,892	33,489.60	509,400	37,017.60	560,765	43,656.00
Coconuts,	No.	359,046	10,771.20	895,031	26,851.20	1,476,496	56.793.60
			44,260.80		63,868.80		100.449.60
Sugar Products:							
Rum,	galls.	9,935	8,342.40	12,456	10,118.40	8,322	8,371.20
Bay Products:							
Bay Oil,	lbs.	31,232	30,096.00	24,275	30,072,00	31,877	28,521.60
Bay Rum,	galls.	411	494.40	287	350.40	195	288.00
			30,590.40		30,422.40		28,809 60
Spices:							
Vanilla,	lbs.	28,206	190,627.20	50,833	328,315.20	64,984	441,974.40
Nutmegs	,,	—	—	—	—	—	—
Ginger	lbs.	6,919	696.00	3,693	369.60	2,242	192.00
Cinnamon	,,	—	—	—	—	—	—
			191,323.20		328,684.80		442,166.40
Other Products:							
Coffee,	lbs.	4,536	633.60	2,459	388.80	658	105.60
Vegetables	,,	—	—	—	—	—	—
Farine	,,	—	—	—	—	—	—
Hides & Skins		—	—	—	—	—	—
Leather, Unmanufac/d		—	—	—	—	—	—
Turtle Shells		—	—	—	—	—	—
Tobacco, Cigars & Cigarettes,	lbs.	11,094	11,788.80	5,028	5,395.20	8,111	10,406.40
Miscellaneous	val.	—	8,856.00	—	25,675.20	—	14,414.40
			21,278.40		31,459.20		24,926.40
Forest Products:							
Hardwood,	ft.	74,448	2,932.80	59,722	2,678.40	12,638	542.40
Firewood,	Cords	1,609	5,280.00	2,064	8,313.60	2,242	10,761,60
Canoe Shells		—	—	—	—	—	—
Shingles		—	—	—	—	—	—
Charcoal		—	—	—	—	—	—
Locally made Boats	No.	—	—	—	—	1	14 40
Baskets	,,	—	—	—	—	—	—
Other Forest Products	val	—	182,40	—	76.80	—	4.80
			8,395,20		11,068.80		11,323,20
Value of Local Exports . .			667,656.00		979,617.60		1,118,068.80
Total Re-Exports			25,742.40		29,985.60		39,340.80
Value of Total Exports ..			693,398.40		1,009,603.20		1,157,409.60

AGRICULTURAL EXPORTS — DOMINICA, 1946-48.

		1946.		1947.		1948.	
		Quantity.	F.O.B. Value $	Quantity.	F.O.B. Value $	Quantity.	F.O.B. Value $
Lime Products:							
Concentrated Juice,	galls.	182	62.40	3,186	3,134.40	—	—
Raw Juice,	galls.	283,113	100,910.40	344,054	174,432.00	589,672	365,778.07
Lime Juice, Cordial	,,	—	—	—	—	—	—
Distilled Oil,	lbs.	27,934	153,715.20	26,888	144,326.40	23,911	103,809.51
Ecuelled Oil,	,,	2,944	29,092.80	1,503	14,472.00	985	7,984.12
Oils in Solution,	,,	195		4,146	—	14,905	—
Green Limes,	brls.	1,620	8,500.80	1,765	10,046.40	3,207	14,094.43
Pickled Limes,	,,	—	—	—	—	—	—
			292,281.60		346,411.20		491,666.13
Other Fruits and Allied Products:							
Oranges,	C/crates	9,521	24,172.80	8,845	38,164.80	13,156	58,605.03
Orange Oil,	lbs	1,424	6,494.40	651	1,084.80	1,412	4,157.78
Grapefruit,	C/crates	5,219	13,051 20	6,767	21,715.20	7,164	25,068.98
Grapefruit Juice,	galls.	512	417.60	11,730	7,742.40	26,338	80,643.36
Grapefruit. Oil	lbs.	—	—	11,085	3,744.00	300	608.70
Bananas,	bunches	3,602	1,113.60	7,263	7,344.00	14,731	14,142.00
Mangoes,	C/crates	5,940	5,347.20	6.609	8,064.00	12,063	38,634.69
Avocado Pears,	T/crates	3,199	1,612.80	13,965	7,560.00	20,919	42,681.25
Miscellaneous	val	—	31,977.60	—	6,412.80	—	125,538.57
			84,187.20		101,882.00		390,080.36
Cocoa Products:							
Cocoa, Raw	lbs.	200,243	18,610.00	469,858	158,443.20	420,806	160,264.59
Cocoa, Prepared	lbs.	20	4.80	84	14.40	11	2.64
			18,614.80		158,457.60		160,267.23
Coconut Products:							
Copra,	lbs.	670,663	57,124.80	610,895	56,299.20	671,852	61,401 53
Coconuts,	No.	387,069	10,828 80	510,627	15,254.40	408,693	13,295.56
			67,953.60		71,553.60		74,697.09
Sugar Products:							
Rum,	galls.	4,366	5,222.40	8,378	8,486.40	10,227	15.975.23
Bay Products:							
Bay Oil,	lbs.	24,199	21,753.60	24,220	23,980.80	34,674	33,046.08
Bay Rum,	galls.	170	254.40	201	403.20	161	344.14
			22,008.00		24,384.00		33,390 22
Spices:							
Vanilla,	lbs.	47,819	336,624.60	15,644	103,598.40	51,909	154,164.44
Nutmegs	,,	—	—	—	—	—	2.60
Ginger	lbs.	2,833	144.00	5,881	206.40	5,102	145.07
Cinnamon	,,	—	—	—	—	1,617	391.47
			336,768.60		103,804.80		154,702.98
Other Products:							
Coffee,	lbs.	142	9.60	22	4.80	1,868	298.86
Vegetables	,,	—	—	—	—	—	4,259.21
Farine	,,	—	—	—	—	10,513	1.650.41
Hides & Skins		—	—	—	—	—	—
Leather, Unmanufac/d		—	—	—	—	555	265.54
Turtle Shells		—	—	—	—	—	
Tobacco, Cigars & Cigarettes,	lbs.	787	1,906.80	1,940	7.872.00	4,134	16,270.40
Miscellaneous	val.	—	8,764.80	—	35,491.20	—	12,687.71
			10,771.20		43,368.00		35,432.16
Forest Products:							
Hardwood,	ft.	18,976	816.00	10,188	417.60	9,082	1.656.00
Firewood,	Cords	2,277	10,608.00	1,495	7,267.20	1,492	7,411 14
Canoe Shells		—	—	—	—	—	—
Shingles		—	—	—	—	—	—
Charcoal		—	—	—	—	1,000	23 24
Locally made Boats	No.	—	—	—	—	—	—
Baskets	,,	—	—	—	—	—	200 64
Other Forest Products	val	—	—	—	4.80	—	200.00
			11,424.00		7,689.60		9,491.02
Value of Local Exports			839,230.80		865,987.20		1,365,702.42
Total Re-Exports			71,880.00		96,249.60		181,286.69
Value of Total Exports			921,110 80		962,236.80		1,546,989.11

The monetary value of exports for the year excluding re-exports totalled $1,365,702.42, an increase of 57.7% over the previous years. There was an all round increase in both quantity and value of all major commodities exported with the exception of cocoa, which showed a decrease in quantity but increase in value.

Observations relating to the following industries are recorded below :—

Limes.—Production of limes over the past six years, calculated as barrels of fruit is set out in the following table :—

Product.	*Barrels of Fruit*					
	1943.	*1944.*	*1945.*	*1946.*	*1947.*	*1948.*
Distilled Lime Oil ..	96,408	116,701	47,994	74,970	76,140	64,901
Ecuelled ,, ,, ..	7,680	13,912	29,976	23,552	12,024	9,357
Oils in Solution ..	—	—	5,273	682	14,511	40,456
Green Limes	605	499	727	1,771	1,765	3,207
Pickled Limes	—	—	—	—	—	—
	104,693	131,112	83,970	100,975	104,440	117,921

The figures for any one year do not necessarily represent annual production as there may be a carry-over of products at the end of a calendar year. However, the six year average of 107,185 barrels serves as a reliable guide to present production. This year's production of fruit exceeds that of last year by 13,481 barrels.

Countries of destination.—The destination of lime products is set out in the following table :—

Product.		*Country of Destination.*					
		United Kingdom.	Canada.	British Possessions.	United States.	Foreign Countries.	TOTAL
Concentrated Juice	gals.	—	—	—	—	—	—
Raw Juice	,,	466,811	11,679	87,224	12,440	11,518	589,672
Distilled Oil	lbs.	13,561	630	2,765	6,955	—	23,911
Ecuelled Oil	,,	635	—	—	350	—	985
Oils in Solution	,,	14,881	16	—	8	—	14,905
Green Limes	brls.	1,416	899	892	—	—	3,207

Vanillas.—Export of cured beans totalled 51,909 lbs., an increase of 36,265 lbs. over the previous year. Of this amount it is estimated that carry-over stocks from 1947 accounted for 19,000 lbs. The exportable value of the crop was $154,164.44 as compared with $103,598.40 for the previous year, a 48.8% increase as compared with 231.8% in quantity.

Though prices were relatively low, around $2.00 (U. S.) per lb. C.I.F., the demand was steady and favourable reports on quality were received from buyers. It is to be hoped that the confidence of buyers in Dominica beans has now been fully restored.

Destination.—All vanilla was exported to the United States of America.

Coconut Products.—The production of copra was 671,852 lbs . an increase of 60,957 lbs. and a value of $5,102.00 over 1947, this increase in copra manufacture was at the expense of a slight decrease of less than 2,000 nuts in the amount of nuts exported, indicating an increased production for the year. The current price of copra is fixed at $204.20 per ton F.O.B. This was decided at the second Oils and Fats Conference which was convened by the Comptroller for Development and Welfare in the West Indies. and held in Barbados from 18th–22nd July, 1947. The Conference recommended that the export prices of Coconuts, Copra, Edible Oil and derived products should be determined as follows for the period of the five years of the Agreement.

First year	$204.00 per ton F.O.B.
Second year	$204.20 per ton F.O.B.
Third year	Price to be negotiated within the limits $192.00 to $216.00 per ton F.O.B.
Fourth year	Price to be negotiated within the limits $168.00 to $216 00 per ton F.O.B.
Fifth year	Price to be negotiated within the limits $168.00 to $216.00 per ton F.O.B.

Under this Agreement copra required by Barbados will be supplied from the Windward Islands of which Dominica is expected to supply 300 tons.

Cocoa.—There was a drop of 49,052 lbs. in this year's production, but in spite of this, the exportable value showed an increase of $1,821.00 over the previous year. Prices offered during the year were in the order of 22½ to 28¾ cents per lb. locally. The bulk of cocoa exported was destined for the United States of America.

Bananas.—Export figures doubled those of the previous years, 14,731 stems bringing in $14,142.00. Early in the year a contract was entered into between the Dominica Banana Association and the Grayson Shipping Line for the purchase by the latter of all Gros Michel Bananas grown in the island, at a price of $1.44 per count bunch F. O. B. Shipping facilities were irregularly provided, and exporters were allowed to make private shipments where opportunity offered. It is unlikely that a price of $1.44 per count bunch F.O.B. will be considered attractive by growers.

A much more interesting development was the preliminary discussion between the Dominica Banana Association and a private concern with United Kingdom and Eire connections for the purchase by the latter of all Lacatan bananas grown in Dominica on a 15 year contract basis. The successful negotiation of this contract will result in a consiberable expansion of the banana industry, a matter of the greatest economic importance to the island.

Rum.—The production of this commodity has increased by 37,294 gallons over the previous years output, and the following table sets out production for the past six years :—

1943	....	....	....	74,120 gallons
1944	....	....	....	84,852 ,,
1945	....	....	....	91,898 ,,
1946	....	....	....	98,668 ,,
1947	....	....	....	97,706 ,,
1948	....	....	....	135,000 ,,

The quantity exported amounted to 10,227 gallons as compared to 8,378 gallons for the previous year.

Forest Products.—The saw mill and processing plant erected in 1947 worked at full capacity during the year, turning out boards and scantling which were practically all used locally.

PESTS & DISEASES.

General.—There were no serious outbreak of pests or disease during the year.

Citrus.—(*a*) *Limes.*—Withertip (*Gloeosporium limetticolum*) was more marked than in the previous year as climatic conditions favoured its incidence.

(*b*) *Oranges and Grapefruit.*—Fruit piercing moths as usual caused losses to growers, especially in fruit harvested in November and December.

Vanilla.—The incidence of Rootrot (*Fusarium batatis va. Vanillæ*) was not abnormally high. This may be to some extent correlated with the reduction of excessive cropping of the vines over the past two years.

Tobacco.—The incidence of Tobacco Mosaic (*Nicotiana Virus*) was less marked than the previous year.

Bananas.—Panama Disease (*Fusarium Cubense*). There was no reduction in the incidence of this disease. If, however, the Potoric (Lacatan) becomes the commercial variety of the island, this disease will no longer be a limiting factor in production.

Sigatoka Disease (*Cercospora Musæ*) was observed in most banana areas as Lacatan as well as Gros Michel is susceptible to this fungus. Control measures will no doubt become necessary if there is a rapid expansion of the industry.

PART II.

WORK OF THE DEPARTMENT

ADMINISTRATION.

Serious staffing difficulties were experienced during the year. The post of Agricultural Assistant, vacant since the latter part of 1947 remained unfilled. The Senior Agricultural Instructor in addition to his normal duties was in charge of the Produce Inspection Service. As there is a direct co-relation between the available staff and work output, it was inevitable that the further development of the activities of the Department was retarded, and its efficiency impaired.

PUBLIC GROUNDS.

Routine work of maintenance was carried out on the grounds of the Public Library, Memorial Park, Morne Bruce and the Military Cemetery. In addition, the Government Office Grounds were taken over by the Department. The old plots of guinea grass were removed and replaced by lawn grass. The area was landscaped and flowering shrubs planted.

BOTANIC GARDENS.

Decorative Section —The attractiveness of the ornamental sections and lawns was maintained. Special mention should be made of Baikea Insignis, a tree indigenous to West Africa which flowered profusely this year. Its remarkable white flowers are fully 10 inches across when fully expanded. Unfortunately, very few seeds are produced and so far attempts at vegetative propagation have not been successful.

CROP OBSERVATION AND MULTIPLICATION PLOTS AT BOTANIC GARDENS AND AGRICULTURAL STATIONS.

(i) **Yams.**—The following varieties were cultivated to provide planting materials for distribution. Barbados Lisbon, Moon, Moonshine, Lisbon 638, Statia Smooth, Statia Rough, Silk Yam, Special Red Lisbon, Oriental and Bottle Neck Lisbon.

(ii) **Grasses.**—The following fodder grasses were cultivated—

Station	*Type of Grass.*
Botanic Gardens	Elephant Grass (*Pennisetum purpureum*)
	Guatemala Grass (*Tripsacum laxum*)
	Coloniao Grass (*Panicum spectabile*)
La Plaine	Sour Grass (*Andropogon pertusus*)
	Elephant Grass
	Coloniao Grass
Londonderry	Elephant Grass
	Guatemala Grass
Portsmouth	Elephant Grass
Colihaut	Elephant Grass
	Sour Grass

Elephant grass has been the best all round performer. Grasses are cut when six to eight weeks to obtain the optimum nutrient value.

(iii) **Sugar Cane.**—No new varieties were imported during the year. Varieties B 37161, B 4098 and B 3439 were grown for providing plant material for distribution.

(iv) **Tropical Kudzu.**—Trials with this crop confirmed that it is well suited to local conditions Its habit of growth, however, renders it unsuitable for use under orchard crops. It tends to climb on the trees and its heavy foliage makes the collection of fruit from the ground difficult.

(v) **Dwarf Coconuts.**—The three plots of dwarf coconuts have all made extremely good growth during the year. Individual trees in the plots at Grand Bay and Portsmouth have flowered and set fruit. This means that these plots have come into production in less than four years. No signs of any pests or disease have as yet been observed.

(vi) **Cocoa.**—Data concerning yield and self compatability were recorded from selected trees at the Botanic Station. Individual tree records were also continued at Picard Estate. The plot established at Londonderry last year has made satisfactory progress. Sixteen clones were planted during the year bringing the total up to 56. Two plants D. S. 9 (Dominica Selection) produced pods during the year. As these plants were put out in 1947, they have come into bearing in less than two years.

(vii) **European Vegetables.**—A variety of vegetables including Tomatoes, Carrots, Cabbages, Cauliflower, Beans, Lettuce, Cucumber, Spinach and Egg Plant were grown in Demonstration plots at the Botanic Gardens. The Rosita variety of Egg Plant has again proved resistant to wilt.

(viii) **Canary Tomatoes.**—Seeds of three varieties of tomatoes viz. Lima, Pelota and Sorpressa cultivated on a commercial scale in the Canary Islands were supplied by an interested importer from the United Kingdom. Trial plots were put down at the Botanic Gardens and at Agricultural Stations. The plants have so far made good growth and appear to be more resistant to the wilt disease than the American varieties. The crop will be reaped early next year.

LIME EXPERIMENT STATION.

(*a*) **Limes.**—The conservation measures adopted during the past two years were well maintained, and the contour drainage systems worked efficiently. All plots were hand forked, and fertilizer 10:8:4 applied at the rate of 5 lbs. per tree.

Plot 5. The newly established plot of limes budded on Seville orange (gosport) made satisfactory growth during the year. No supplies were needed.

The crop for the Station amounted to 912 barrels as compared with 1,326 barrels for the previous year.

The sale of produce was by quarterly tender, and for purposes of comparison, the previous year's prices are also quoted.

	1947	1948
1st Quarter	8/8	8/8
2nd Quarter	8/8	8/-
3rd Quarter	8/8	9/3
4th Quarter	8/8	9/3

(*b*) **New Varieties of Citrus**.—The plot which was established last year consisting of Sampson Tangelo, Ruby Grapefruit, Glen Red Grapefruit, Calamondin, Armstrong Seedless Orange and Cleopatra Mandarin was maintained and made satisfactory growth during the year. No supplies were necessary.

PLANT DISTRIBUTION.

Plant nurseries were maintained at the following places during the year. Botanic Gardens, Goodwill Estate, District Agricultural Stations, Pointe Michel, Mahaut, Vieille Case, Grand Fond and Delices. Plants distributed during the year are detailed below :-

(*a*) Budded or Grafted Plants.

Washington Navel Orange	3,329 plants
Other Oranges	763 ,,
Grapefruit	1,305 ,,
West Indian Limes	11,445 ,,
Other Citrus	93 ,,
Avocado Pears	262 ,,
Mangoes	106 ,,
	17,303 plants

Other Economic Plants.

Coconut Seedlings	62 plants
Nutmeg ,,	3,269 ,,
Cocoa ,,	2,740 ,,
Coffee ,,	2,437 ,,
Coffee Pods	106 pods
Fodder Grass	2,060 cuttings
Sweet Potato	2,300 cuttings
Sugar Cane	10,677 cuttings
Yams	3,192½ lbs.
Miscellaneous	728 plants
European Vegetable Seeds	143 lbs.
European Vegetable Seedlings	1,685 plants.

PLANT INTRODUCTIONS.

Seeds and plant material introduced during the year comprised the following :—

Sorghum Variety :		James M. Watkins,
Hegary	1 pkt. seeds	Santa Tecle, Centro
Arizona Hegary	1 ,, ,,	Nacional de Agronomica,
Sugar Drip	1 ,, ,,	Republica de San Salvador.

Criollo		1 pkt. seeds	Central America,
Finger Millet		4 ozs.	Social Welfare Officer,
Cayman Wheat		1½ ,,	Dominica.
Giant Sunflower		5½ ,,	do.
Sweet Corn		10 ,,	do.
Cocoa Budwood	I.C.S.	1	St. Vincent
	I.C.S.	6	do.
	I.C.S.	8	do.
	I.C.S.	16	do.
	I.C.S.	36	do.
	I.C.S.	45	do.
	I.C.S.	46	do.
	I.C.S.	60	do.
	I.C.S.	68	do.
	I.C.S.	84	do.
	I.C.S.	95	do.
	I.C.S.	98	do.
	G.S.	5	do.
	G.S.	7	do.
	G.S.	19	do.
	G.S.	29	do.
	G.S.	33	do.
	G.S,	76	do.
	P.	1	Picard Estate, Dominica.
	I.C.S.	1	Trinidad.
	I.C.S.	45	do.
	I.C.S.	46	do.
	I.C.S.	60	do.
	I.C.S.	84	do.
	I.C.S.	95	do.

COCOA PROPAGATION STATION.

In last year's report details of a proposed scheme for the establishment of a Cocoa Propagating Station was published as Appendix V. This scheme with minor amendments was submitted to the Secretary of State for a grant under the Development and Welfare Act, and approval was received during the course of the year. Ten possible sites for the Station were surveyed in conjunction with Mr. W. F. Cope, Cocoa Agronomist, Windward Islands, and a satisfactory settlement was made with the owner of Hillsborough Estate in the Layou Valley for the lease of 11 acres. Work on the Station commenced in August and consisted of preparation of nursery site and preliminary work in the construction of buildings, propogating bins and installation of a water supply.

LIVESTOCK.

(*a*) **Stud Animals.**—During the year two stud bulls retired and two new ones were imported to replace them. One of these, however, will not be ready for service until next year. Both animals were ¾ grade Holstein-Zebu obtained from the Trinidad Government Stock Farm. Other importations included two young thoroughbred boars, one Berkshire and one Large Black. At the end of the year the following stud animals were on strength.

Bulls	Stallion	Sheep	Pigs
5	1	4	3

The following table sets out the number of services recorded during the past five years.

Animal	Number of Services and Year					Total 5 years
	1944	*1945*	*1946*	*1947*	*1948*	
Bull	153	331	478	330	183	1,475
Sheep	93	136	79	81	146	535
Goat	145	56	50	11	—	262
Horse	5	30	22	27	6	90
Pig	—	—	36	70	36	142

The above figures do not include return services.

(*b*) **Poultry.**—Six pens were maintained during the year. The following table sets out the distribution of eggs over the past five years.

Year	*1944*	*1945*	*1946*	*1947*	*1948*	*Total*
Eggs distributed.	717	1,376	1,836	885	1,062	5,876

EXTENSION WORK.

This consists of giving advice to all growers through personal visits, demonstrations and other appropriate measures. The staffing difficulties referred to elsewhere reflected on the efficiency of this service, which largely depends on adequate supervision. Visits were paid to small holdings and Estates, by all members of the staff.

The 4 H. Club movement under the direction of the Social Welfare Officer now consists of four clubs, a reduction of one as compared with the previous year. The District Agricultural Instructor is in each case actively associated with the projects. It should be mentioned that the almost complete lack of leadership in the rural communities is a serious limiting factor to the success of these clubs.

Agricultural Stations.—The five Agricultural Stations were maintained. No further developments can be recorded as Scheme D 1052 which has as its object the development of these stations was approved very late in the year.

(1) **Plant Nurseries.**—Plant material in the form of budded and grafted plants, ground provisions, fodder grasses and seed of European Vegetables were available at Agricultural Stations. (For details see Plant Distribution.)

(ii) **Livestock Improvement.**—Stud centres were operated at four Agricultural Stations. (For details of services recorded see Livestock Section.)

(iii) **Observation Plots** were put down at all stations. (Relative information is supplied under Observation Plots.)

(iv) **Investigational work** on the stations was confined to experiments on Vanilla and trial plots of Soya Bean.

CONSERVATION OF NATURAL RESOURCES.

Progress continued in the spread and application of conservation measures, viz. planting of orchard crops on the contour, digging of contour drains and laying down of grass strips and stone barriers on sloping land. For the most part the areas which have been treated have been well maintained.

Though the rainfall for the year was not above average, it was marked by heavy falls in the interior of the island during certain periods of October and November. This caused several rivers to flood seriously, an alarming feature of these floods being the rapid rise of

water and the large quantity of soil transported to the sea; an indication of extensive clearing in the catchment areas.

Wastage and destruction of the forest resources continued during the period under review. It is most encouraging, however, to record the approval of the Forestry Scheme which is intended to give effect to the Forest, Soil and Water Conservation Ordinance which was made law in December, 1946. It is hoped that the Scheme will be in operation early next year. The enforcement of these regulations together with the education of the public, will, within the next five years contribute materially in the conservation of the island's natural resources. Immediate results are not however to be expected.

PRODUCE INSPECTION.

During the period under review a revised inspection service for Vanillas was organised. This consisted of a Produce Inspector (part time), and 12 Vanilla Examiners employed during the crop-season, January to April. The regulations which govern the inspection of vanillas is set out in Sale of Produce Ordinance, No. 1 of 1948. Vanilla is subject to pre sale inspection at buying depots as green beans. In addition, all cured beans are inspected prior to export. Efficient pre sale inspection to ensure that only mature beans are sold to curers is the key to the production of a high quality product.

Reports from buyers indicated that the quality of the beans had improved considerably over that of previous years. The following extract from a customer's letter to a local shipper speaks for itself. "We had an opportunity to examine one of your recent shipments you made to the States and were pleasantly surprised about the quality, which was a vast improvement over the beans as they were shipped from Roseau before."

The following table sets out the quantities of green beans inspected at the various buying stations.

Stations	Green beans
Roseau	126,333 lbs.
Mahaut	4,148 ,,
St. Joseph	10,454 ,,
Coulibistrie	11,115 ,,
Colihaut	1,854 ,,
Marigot	2,020 ,,
Castle Bruce	804 ,,
Grand Bay	702 ,,
Rosalie	235 ,,
Delices	235 ,,
La Plaine	31 ,,
	157,931 lbs.

Of this quantity, 3,427 lbs. was rejected as unfit for sale.

AGRICULTURAL EDUCATION.

(*a*) **Pupil Apprentice Course.**—Fifteen pupils were in attendance throughout the year. Four completed the course and two new ones were enrolled. Three of the four who completed the course have been retained at the Botanic Gardens to assist in cocoa and citrus propagation work, and the other was sent to the Cocoa Propagation Station at Layou.

(*b*) The following periodicals were received and circulated amongst the staff:
The Smallholder and Home Gardening.
The Journal of the Jamaica Agricultural Society.
The Farm Journal of British Guiana.
Proceedings of the Agricultural Society of Trinidad and Tobago.

The Negro Farmer.
The American Small Stock Farmer.

LABORATORY.

Return of chemical analysis and tests are set out hereunder :-

Product.	*Type of Test.*	*No. of Samples.*
Raw Lime Juice	Citric Acid Content	14

STAFF NOTES.

Mr. L. L. de Verteuil, Superintendent of Agriculture, was absent from the Colony on duty leave from 18th to 22nd October in Guadeloupe, and from 25th November to 13th December in Jamaica.

Mr. D. A. Perryman, Agricultural Assistant. Northern District, accepted a transfer to Grenada and relinquished his duties on 30th June.

Mr. S. O. Pringle, arrived in the Colony on 12th June, and assumed duties as Agricultural Assistant. Northern District on 30th June. This Officer is on secondment from the Government of Jamaica.

In view of the exigencies of the Service, it was not possible to grant vacation leave to any of the establishment staff.

SPECIAL MISSIONS AND OFFICIAL VISITS.

On the recommendation of the Dominica Banana Association, Government delegated the Honourable H.D. Shillingford and the Superintendent of Agriculture to visit the French Island of Guadeloupe and the Island of Jamaica for the purpose of making such observations on the Banana Industry of the respective Islands, which would aid in establishing the Banana Industry of Dominica. Guadeloupe was visited from 18th to 22nd October, and Jamaica from 25th November to 13th December. Through the courtesy of the Government and trade representatives of both places, the task of the delegates was greatly facilitated. It can be confidently stated that the information obtained will be of the greatest value in establishing the Banana Industry of Dominica.

Mr. F.W. Cope, Cocoa Agronomist, Windward Islands, visited the island from 12th to 19th June. The main purpose of his visit was to advise on the selection of a site for the Cocoa Station.

ACKNOWLEDGMENTS.

It is with pleasure that I record the thanks and appreciation of the Staff of the Department, to all those who have assisted and co-operated in the work of the Department.

The local press has assisted materially by giving publicity to the Department's work, and by offering some constructive criticism.

The thanks of the Department is also extended to planters for their hospitality to visiting officers.

Finally, I wish to pay tribute to the Staff for their good work. Special praise is due to Mr. C. A. Seignoret, 2nd Class Clerk, and Mr. G. J. Sedman, Senior Agricultural Instructor for oustanding services rendered the Department during the year.

APPENDIX I.

GOVERNMENT MARKETING DEPOT.

FRUIT TRADE.

While packing operations and other functions of the Government Marketing Depot have

not yet reached pre-war levels, there are other features of progress which are encouraging and may be regarded with certain satisfaction as a gradual easing of the tension the fruit export business has been subjected to since the war.

During the year it has been possible to contact sources of necessary materials and attempt to organise the regularity of deliveries of supplies for our particular needs.

Though trade with Bermuda was somewhat restricted by the limited opportunities provided by the two 'Lady' boats serving this route, an effective demand for our produce in this market has enabled exporters to take the fullest advantage of the comparatively few shipping opportunities to Bermuda.

The early receipt of advices from our Agents in St. John, N.B. and Halifax, N.S. indicating very poor prospects of sales of oranges and grapefruit would normally have been of serious consequence to the trade. The effects of this development were, however, alleviated to some extent by the cumulative effects of the policy of minimum standards of cultivation applied during the war years and after, which was responsible for a considerable reduction in the anticipated quantity of oranges that would be available for export trade.

The existence of a marketing organisation in Barbados also provided a potential outlet for the surplus quantities of produce which were more or less artificially created by the lack of shipping facilities to Bermuda.

In this regard the Depot maintained weekly shipments to the Marketing Agency in Barbados and while there was a slight increase in the numerical volume of traffic with the Agency it became increasingly evident that the present volume of business conducted by this organisation was inadequate to justify its maintenance.

Table I shows the total number of crates packed by the Depot and their destination.

TABLE I.

STATEMENT SHOWING TOTAL NUMBER OF CRATES OF FRUIT PACKED BY G. M. DEPOT DURING THE YEAR ENDING 31ST DECEMBER, 1948.

Produce.	Containers.	Bermuda.	Canada.	Barbados.	U. K.	Other	Total.
Oranges ...	C/crates	3,913		2,259		51	6,253
Grapefruit ...	,,	816		358		42	1,216
Limes	,,	239		578	2,833	1	3,951
Limes	T/crates		9,684				9,684
Mangoes (ordinary)	C/crates	2,601		19			2,620
Mangoes (grafted).	T/crates	2,179		47			2,226
Avocado Pears ...	,,	5,789		243			6,032
Cabbages	Casks			274			274
Bananas	Bunches			1,428		22	1,450
Plantains	Bunches			1,014		14	1,028
Farine	Bags	33					33
Other	C/crates	86		103		1	190
Coconuts	Bags			51			51
Pumpkins	Barrels	22		53			75
Lemons	C/crates	335		11,606			11,941
							47,024

For purposes of comparison Table II gives the quantity of fruit, etc. packed during the year under review, together with the quantity packed in the previous year.

APPENDIX I.

TABLE II.

Produce.	*Type of Package.*	*1947*	*1948*
Oranges	C/crates	5,864	6,253
Grapefruit	,,	1,817	1,216
Limes	,,	326	3,951
Limes	T/crates	7,786	9,684
Lemons	C/crates	71	335
Mangoes (ordinary)	C/crates	241	2,620
Mangoes (grafted)	T/crates	1,228	2,226
Avocado Pears	,,	6,240	6,032
Cabbages	Casks	20	274
Bananas	Bunches	730	1,450
Plantains	Bunches	1,004	1,028
Farine	Bags	196	33
Coconuts	Bags	58	51
Pumpkins	Barrels	44	75
Other	C/crates	106	190

Oranges.

Export of oranges to the Bermuda market were principally of the 'Washington Navel' variety, and prices which yielded returns to growers averaging $3.35 per crate were maintained. A total of 2,259 crates forwarded to the Marketing Agency in Barbados was obtained from growers at a price of $1.92 per crate net.

Grapefruit.

The grapefruit crop was decidedly late and the demand both in Bermuda and the neighbouring islands was slow. A total of 227 crates were marketed in Bermuda and prices realised produced returns to growers averaging $2.45 per crate. Shipments to the marketing organisation in Barbados were obtained at a price of $1.44 per crate net.

The major portion of the crop was disposed of in the form of juice which was sold on the English market by a private individual.

Limes.

In view of past experience with limes shipped on consignment to Montreal it became necessary to adopt a policy of outright sales for all requirements by our Agents. Three shipments totalling 1,593 lugs were sold in this market during the summer at a price of $2.45 (West Indian Currency) c.i.f. This figure netted for the grower a price equivalent to $8.00 per barrel delivered in the shed.

Sugar rationing in Bermuda had an adverse effect on our trade in this item. Small but regular quantities totalling 239 citrus crates were, however, disposed of in the Bermuda market. Of this total the Depot marketed 121 crates and paid to growers returns equivalent to $6.00 per barrel.

Avocado Pears.

The exports of avocado pears show more clearly the extent to which the trade explored the possibilities of the Bermuda market. An unprecedented total of 5,789 lugs of pears were shipped to this market, and returns for shipments by the Depot totalling 1,612 lugs averaged $1.72 per lug of approximately 16 to 20 fruit.

The demand for pears for the Bermuda market was so active as to detract from the quantities that would normally be available for making up shipments to the Barbados Agency and in consequence supplies to this organisation dropped from 1,296 crates in the previous year to 243 crates during 1948.

Mangoes.

A marked increase in the demand in Bermuda for both the seedling and grafted type

of this fruit was responsible for the increase in exports of mangoes. Practically the entire quantities of mangoes packed by the Depot were marketed in Bermuda. Of the total of 2,601 crates of seedling and 2,179 lugs of grafted mangoes shipped to Bermuda, the Depot marketed 400 crates and 947 lugs respectively. The seedling types netted to the grower $2.55 per crate of approximately 180 fruit and the grafted varieties of $1.62 per lug of approximately 35 fruit.

Pumpkins, Farine and other Products.

Shipments of farine to Bermuda were maintained despite competition with a cheaper priced product from a neighbouring island. Producers realised an average of 13.6 cents per lb.

Pumpkin shipments were continued to Bermuda and realised for the grower an average price of 7.01 cents per lb. The greater part of the quantity handled by the Depot was however consigned to the Barbados market and was purchased from growers at the rate of 3 cents per lb.

The following table shows the quantities marketed in Bermuda by the Government Marketing Depot and the average net returns paid to growers.

Produce.	*Size of package in cu ft.*	*Quantity.*	*Net return to Grower per unit of pack*
Oranges	2'	2,220	3.35
Grapefruit	2'	227	2.45
Limes	2'	121	3.00
Avocado Pears ...	¾'	1,612	1.72
Grafted Mangoes ...	¾'	947	1.62
Ordinary Mangoes ...	2'	400	2.55
Yams	2'	8	1.54
Tannias	2'	4	4.06
Pineapples	2'	7	2.45
Pumpkins	100 lb. brls.	22	7.01
Farine	75 lb. bags	26	10.22

War Emergency Work.

The staff continued to perform emergency duties connected with (a) slaughter of livestock, (b) meat and fish control and (c) assistance to butchers in the purchase of livestock.

Meetings, Boards, etc.

Weekly meetings of the Valuation Committee of Export Values and two meetings of the Fruit Trade Committee were attended by the Manager.

The Manager also served on a Committee appointed by His Excellency the Acting Governor of the Windward Islands, to enquire into the operation of the Dominica and St. Lucia Marketing Agency in Barbados, and attended meetings beginning on 29th July, and ending on the 5th August, 1948.

Staff.

Mr. L.W. Edwards was appointed to the post of Accountant, and assumed duties on the 8th November, 1948.

Mr. G.A. Winston, Manager, was absent on sick leave from the 30th November to 27th December, 1948.

Mr. J.J. McDowell, Foreman, was absent on vacation leave from the 1st to 30th April, 1948.

Finance.

Expenditure not including Sinking Fund and the cost of lighting supplied by the Public Works Department totalled $29,811.62 and Revenue $32,354.90.

G. A. WINSTON,
Manager,
Government Marketing Depot.

APPENDIX II.

AGRICULTURAL LEGISLATION.

Sale of Produce (Amendment) Ordinance, No. 1 of 1948.

The Forest, Soil and Water Conservation (Amendment) Ordinance, No. 3 of 1948.

The Plant Protection (Importation) (Amendment) Regulation, (S. R. & O. No. 4 of 1948).

The Agricultural Produce Exportation (Amendment) Rules, (S.R. & O. No. 10 of 1948).

The Agricultural Produce Exportation (Amendment) Rules, (S R. & O. No. 30 of 1948).

The Minimum Wages (Agricultural Labourers) (Amendment) Proclamation, (S R. & O. No. 28 of 1948).

APPENDIX III.

SUMMARY OF INVESTIGATIONAL WORK CARRIED OUT DURING THE YEAR.

(a) Sugar Cane Variety Trials.

(i) *2nd Ratoon.*

Object.—The object of the experiment was to compare five cane varieties *viz.* B. 37161, B 3439, B 35187, B 35245 and BH 10/12. The experiment was reaped as plant canes and 1st ratoons in 1946 and 1947 respectively, and the results published in those years.

Layout.—The layout was a 5 x 5 Latin Square.

Site and Soil Type.—The experimental area was a flat of alluvial soil which prior to planting of the last crop was under cocoa.

Rainfall.—The annual rainfall is approximately 100 inches.

Manurial Treatment.—One application of mixed fertilizer 9:5:7 at the rate of 4 cwts. per acre six weeks after cutting of plant canes.

Results.—The crop was reaped on 4th, 5th April, 1946, as plant canes, and on the 13th March, 1947, as first Ratoons. The second Ratoon was reaped 3rd and 5th May, 1948. The results obtained are presented in the following table:—

Variety.	*Tons Cane per acre.*	*Tins Syrup per acre.*
B 37161	62.47	231.76
B 3439	39.68	171.81
B 35187	24.37	89.44
B 35245	23.17	87.81
BH 10/12	23.32	78.12

Statistical Analysis of these results indicate that the varieties B 37161 and B 3439 are significantly superior to B 35187, BH 10/12 and B 35245.

The analysis of data for both plant canes and 1st ratoon had shown these two varieties to be significantly better and there is no doubt that these varieties will supersede all others for high yield. The combined yields of the three crops with possible gross returns per acre on basis of $2.16 per tin syrup, are set out as follows:—

Variety	*B 37161*	*B 3439*	*B 35187*	*B 35245*	*BH 10/12*
Tons Cane per acre	200.2	155,44	105.84	92.44	82.13
Tins syrup per acre	742.74	673.06	388.43	353.35	275.14
Value @ $2.16 per tin	$1603.20	$1449.00	$840 00	$763.20	$595.20

The above figures speak for themselves, and indicate the superiority of B 37161 and B 3439 of the varieties tested.

SUGAR CANE VARIETY TRIAL NO. 2.

An experiment to compare eight cane varieties *viz.* B 40105, B 37172, B 4098, B 4145, B 37161, B 3337 and B 3439 was put down on Soufriere Estate by kind consent of and co-operation with the owners. The layout of the experiment was in the form of an 8 x 5 Randomized Block.

Canes were planted on the 4th February, 1947, and reaped as plant canes on 26th and 28th April, 1948.

The results obtained are presented in the following table:—

Variety	*Tons Cane per acre*	*Tins Syrup per acre.*
41227	60.10	180
40105	58.7	235
37172	53.71	210
4098	48	205
4145	46.3	162.5
37161	44.87	170
3337	41.67	141
3439	39	140

Statistical Analysis has shown that the varieties may be classified as follows:—Class I B 4098, B 41227, B 37172, B 37161, B 4145 and B 40105, and Class II B 3337 and B 3439. Class I has proved significantly better than Class II. This experiment is being continued and will be reaped as 1st Ratoon Canes in 1949 at which time further results will be published.

(*b*) *Soya Bean Trials.*—Three varieties of Soya Beans were planted with the view of finding a variety or varieties that might be grown economically. Soya Beans are particularly susceptible to enviromental conditions, and it is only by a system of 'trial and error' that varieties suitable for any particular locality might be selected.

The sites chosen were the Londonderry and Grand Bay Centres, and the three varieties, all from the United States of America were Acadian, Yelnando and C.N.S.

The yields of C.N.S. and Acadian at the Londonderry Centre are fair, those at Grand Bay are extremely poor. Subsequent plantings have been made and the results of further trials will be published in due course, but unless greatly improved yields are obtained the cultivation of soya beans as a commercial proposition cannot be recommended.

Records for both Stations are as follows: –

(a) LONDONDERRY AGRICULTURAL STATION.

Variety	*Yield per Acre in lbs.*	*Cost per Acre.*
C.N.S.	533	93.20
Acadian	537	93 20
Yelnando	385	93.20

(b) GRAND BAY AGRICULTURAL STATION.

C.N.S.	114	95,40
Acadian	114	95.40
Yelnando	111	95.10

APPENDIX IV.

REPORT ON GOVERNMENT OWNED ESTATES.

(a) Melville Hall Estate.

Policy.

The policy adopted was the general maintenance of existing cultivation and livestock in as proper a manner as conditions made it possible.

The Livestock policy was reviewed and Sheep and Cattle were added to the existing livestock.

Work on the Estate.

Coconut Cultivation.—All necessary maintenance work was carried out.

The manurial programme laid down in 1947 was continued and completed. Using a fertilizer mixture 5:10:10 at the rate of 8 lbs. per tree. The fertilizer was broadcast in a circle 4 ft. wide and 3 ft. away from the trees. It is anticipated that this will cause increased yields for 1949 and 1950.

The 3 acres of Dwarf Coconuts planted in 1947 can be said to be making good progress. Sections of the plot have been intercultivated with peasant crops and one section has been left uncultivated. Already the benefit of the intercultivation is evidenced in the growth of the plants.

During January of the year a new Malayan Drier was constructed near the Works. To provide in all, two such driers together capable of curing copra from 2,000 nuts daily.

The crop harvested was dealt with as follows :—

Made into Copra	348,700 nuts
Sold	6,000 ,,
Rejects—fed to Pigs	7.415 ,,
On hand at the end of the year..	6,700 ,,
	368,815 Nuts

	Tons.	*Cwt.*	*Qrs*	*lbs.*
Total weight of salable Copra Produce	73	14	0	6

Average number of nuts per ton of Copra was 4,664 nuts.

Grapefruit and Oranges.—The section of the grapefruit at the extreme east of the plot is suffering considerably from exposure to prevailing wind. It is feared that this section will die out shortly.

The fields were kept in good clean condition throughout the year. Two applications of fertilizer were given and the fields mulched to keep down weeds.

1st application in June, 1948	8 lbs. 5:10:10 per tree
2nd application in December, 1948	4 lbs. 5:10:10 per tree

15,929 grapefruit and 3,200 oranges were harvested and sold.

Many oranges spoiled in the field due to little demand when the fruit were ready. Birds also proved a serious pest.

Limes.—These did not receive any special attention as the trees are old and dying out. Plans have been made, however, for their early removal and the area planted with coconuts. 78 barrels were harvested and sold to Messrs. L. Rose & Co., at the rate of $1.68 per barrel.

APPENDIX IV.

LIVESTOCK.

Cattle.—Working oxen to the tune of 6 head have been maintained on the Estate for Draft Purposes. Due to lack of fencing the animals had to be kept in chains. This method proved to have such ill effect that they had to be left at large and tended during the day and put in a close pen at night. This considerably helped their condition and ability to work.

Six head, 4 cows and 2 heifers were taken over from Castle Bruce Estate, to form the nucleus from which a small herd can be bred. The animals were very wild and gave considerable difficulty to be tamed. One cow died in a fit of temper.

Pigs.—Three sows and one grade Lageblack boar formed the breeding nucleus, from which seventeen piglets were sold mainly to peasants at moderate prices. There is a great demand for pigs in the area.

Sheep.—Seventeen head were taken over in February, 1948. During the year 4 were sold and 4 deaths were recorded. At the end of the year there were 24 head on hand.

Worms, the chief parasite in these animals require constant attention. Already Phenothiazine given monthly has proved very beneficial. The sheep project has good prospects here.

Ducks.—A small run was established, the results have not been the most encouraging. With extention it is hoped that the Muscovy will prove a small source of income.

Buildings.—A new house for a manager to be appointed has been erected. This used up the major portion of the capital expenditure for this year.

The Overseer's house was thoroughly renovated and a new kitchen constructed at the overseer's quarters,

A new garage was constructed at the quarters provided for the Agricultural Assistant.

Minor repairs and general maintenance was carried out to the other buildings.

Larceny.—In spite of careful ranging of the Estate, much loss was suffered from the praedial thief taking coconuts and lumber in the woodlands. Several convictions were secured in the Magistrates Court. It is hoped that this will have a deterrent effect in the future.

Labour.—Labourers were adequate and easily obtained. The cost of labour saw a 20% increase due to the ordinance making such increase compulsory.

STATEMENT OF CASH RECEIPTS & EXPENDITURE

FOR 1948.

MELVILLE HALL ESTATE.

Receipts.	$ ¢
Sale of Copra	12,973.06
,, ,, Grapefruit ...	198.33
,, ,, Limes	75.52
,, ,, Other Produce..	76.28
,, ,, Plants (Coconuts)	3.39
,, ,, Livestock ...	402.41
Cattle Pasturage Rents.	67.60
Impoundage Fees ...	5.52
Miscellaneous ...	174 00
	$13,976.11

Recurrent Expenditure	$ ¢
1. Crops	3,734.46
2. Livestock	631.28
3. Staff	1,865.34
4. Transport	825.06
5. Maintenance of Buildings, Yards, Aqueduct and Roads and Carts	868.73
6. Insurance	162.22
By Balance	5,889 02
	$13,976.11

Expenditure.
Capital.

1. Construction of Buildings	2,922.42
2. Malayan Drier—Construction of ...	150.44
3. Extension of Cultivation ...	153.36
4. Tools & Equipment—Purchase of	91.68
5. Livestock ... ... ,, ,,	113.76
6. Fertilizer ... ... ,, ,,	1,523.75
	$4,955.41

(b) GOODWILL ESTATE.

POLICY.

Work performed on the Goodwill Estate was mainly confined to the maintenance of existing Lime cultivations and to enouraging the continued planting of the improved Varieties of Sugar Cane by the Tenants.

Weather Conditions.

General climatic conditions throughout the year were favourable; there being no rain guage available, the annual rainfall could not be appraised.

Pests and Diseases.

Peasants cattle, sheep and pigs continued to be the most persistant pests, causing much damage to lime and banana cultivations and also to tenants' gardens.

Leaf Spot.

Traces of Leaf Spot on Banana trees of the Puerto Rico variety in tenants' old gardens were much in evidence in the Fond Colée Valley.

Pottersville Land Rents.

House lots situated at Pottersville were rented to occupants at the same rates as formerly.

Much difficulty is still being encountered in the collection of these rents.

Collection of rents from several tenants had to be placed in the hands of the Court Bailiff.

By Special concession seven additional lots were let to persons who perforce had to vacate the proposed Cinema site in Kings Lane, Roseau.

Amount Collected	$1,793.50
Arrears 31/12/48	$497.30
Bad Debts (See Trading Account)	$437.10

This amount is the sum of rent which should normally have been collected on vacant lots already rented out, there being no buildings on these lots no claim could be entered and the Management Committee decided to waive the rental.

Lime Cultivation.

Routine. Necessary weedings and cutlassing of the fields were carried out and all necessary drains cleared.

Little forking was done as the fields had been thoroughly flat forked during the previous year.

Dry and decayed branches were removed from the trees but no heavy pruning operations were performed.

Manure.

An application of artificial fertilizer 10:8:4 was made throughout the cultivation, and all available manure, compost and megass were applied, the latter in the form of mulch. The trees responded to this treatment and a marked improvement was noticeable.

Crops Harvested.

The total number of barrels harvested and sold was 1347⅝.

Receipts for same being $ 658.88 Green Limes
$2,566.26 Yellow Limes

The cultivation has shown marked improvement and the texture, size and keeping qualities of the fruit is of high standard.

Cane Cultivation.

All cane cultivation is carried out by tenants on the half share with the exception of a small nursery and experimental plot, planted and cultivated by the Estate.

Number of tenants on the estate 225.

The most outstanding of the new varieties has proved to be B37161, which in spite of the drought at the end of the previous year produced a fair yield, higher by far than the old creole varieties.

Rum.

The sum of $7,319.06 was paid tenants during the year for their half share of canes.

A limited quantity of canes were purchased from estate owners and peasant proprietors in order to assist those who had no facilities for manufacturing same.

Cost of cane purchased from non-tenants $3,052.65 thereby making a total of $10,371.71 for canes purchased for the year 1948.

Total gallonage of Rum manufactured for the year 1948 was 18,879 gallons which, combined with a carry over from the previous year of 1,548 gallons made a total of 20,427 gallons. Of this quantity 9,500 was sold in the course of the year leaving a surplus of 11,701 gallons carried over to 1949.

Value of Rum sold $10,025.29.

Machinery.

The machinery on the whole continued to give as good service as could be expected and with the exception of minor repairs and replacements gave little trouble.

Masonry work to the Steam Boiler had to be partially renewed on two occasions due to the indifferent quality of materials obtained.

A leak in the boiler has gradually enlarged and though the boiler is still useable the large quantity of fuel expended does not warrant its continued use.

The machinery leased to Messrs. J. R. H. Bridgewater & Co. namely waterwheel, mill and tayches are in good condition and continue to give good service.

The still which was put down for repairs and re-erected at the beginning of the year

has worked satisfactorily in spite of a few minor leaks.

Vats.

Several minor repairs had to be effected to bottoms and staves and new metal fittings were renewed on some.

Clarifiers.

In the course of the year the two wooden boxes, receptacles for the juice from the mills, leaked considerably and were replaced by two reinforced concrete tanks, which better serve the purpose and prevent loss of juice.

Buildings.

Minor repairs were effected on all estate buildings.

New guttering was laid down on the main works and the roof painted with metal-anticorosive paint, both interior and exterior of all buildings were white washed and kept neat and trim. Works were wired and electric lights installed.

Boiler.

The boiler shed and megass loft collapsed from decay and age and were replaced by a strong structure with greater storage capacity.

Piggery.

A Piggery consisting of 6 rooms with out runs attached was constructed of rubble masonary with concrete floor and iron railings, this building houses, pigs of the Agricultural Department namely Berkshire and Large Black sows and boars.

Storage of Rum.

Original storage for Rum was found inadequate and a second cellar had to be constructed in an unsued portion of the main building, also racks of hardwood set in concrete were erected in the main cellar thereby enabling storage of casks in tiers and doubling storage capacity.

Canal.

The water supply throughout the year was fairly constant and only the usual clearing of silt and weeds were necessary at regular intervals.

Female Cattle (Meat Market.)

A few cows purchased for slaughter by the market authorities and found young enough to be kept for breeding purposes were pastured at Goodwill Estate until they were eventually exchanged or sold to peasants.

Fodder Plots.

Additional areas were opened up and cultivated in fodder. Elephant and a new specie of Guinea grass were the chief varieties planted, but a small section of Sour Grass and Tropical Kudzu were also established.

Farine.

The old farine house originally thatched was uncovered by high winds. This structure was strengthened and reroofed with all old galvanize salvaged from the old boiler shed and megass loft.

Little farine was made by tenants this year.

Bananas.

Old Bananas stools planted under Food Relief Scheme was cleared, suckers removed and sold as plants and two small plots were established through Lime cultivation, these have made favourable growth.

Praedial larceny has been considerable and many bunches have been ruined through peasants' cattle.

GOODWILL ESTATE.

Trading & Profit & Loss Accounts as at 31st December, 1948.

Date						
1st Jan.	To Stock in hand	$ 3,096.00		By Sales (net)	$14,029.86	
	,, Manufacturing Wages	3,377.78		,, Pottersville Land Rent	1,793.50	
	,, Motor Transport	1,166.34		,, Estate House Rent	48.00	
	,, Cartage	410.78	$ 7,990.90	,, Stable Rentals	6.58	
	,, Repairs & additions	7,215.68		,, Cattle Pasturage	135.84	$16,013.78
	,, Less 50% carried forward	3,607.84	3,607.84	,, Stock in hand per valuation		23,402.00
	,, Purchases	15,636.09		,, Amount recoverable from Tenants Advances		2,397.88
	,, Less 25% carried forward	3,909.02	11,727.07			
	,, Working expenses	13,434.32				
	,, Less 12½% carried forward	1,679.29	11,755.29			
	,, Gross Profit transferred		35,081.10			
	,, Profit & Loss Account		6,732.56			
			$41,813.66			$41,813.66
	To Bad Debts on Pottersville Land Rent A/c		$ 437.10	By Gross Profit from Trading Account		$6,732.56
	Balance being net profit for year carried to Capital Account.		6,295.46			
			$6,732.56			$6,732.56

GOODWILL ESTATE BALANCE SHEET.

As at 31st December, 1948.

LIABILITIES.			ASSETS.		
Capital Account as on 1st January, 1948	$126,822.16		Cash Paid into Treasury		$16,013.78
Add. Profit from Trading Account	6,295.46	$133,117.62	Sundry Debtors		
			Rental of Works		960.00
			Pottersville Land Rent	$ 637.00	
			Produce	5,398.98	6,035.98
			Purchase of Tools B/F	3,909.02	
			Repairs and additions B/F	3,607.84	
			Working Expenses B/F	1,679.29	9,196.15
			Fire Insurance and Licences		614.94
			Stock in Trade		23,402.00
			Machinery, Plant & Premises less Depreciation		76,894.77
		$133,117.62			$133,117.62

APPENDIX V.

SCHEME D 1042.

ESTABLISHMENT OF FORESTRY SERVICE.

I. INTRODUCTION.

During 1944, a visit was paid to Dominica by a Forest Officer from Trinidad, and a report subsequently issued by the Conservator of Forests, Trinidad and Tobago, making certain recommendations (D. & W. Bulletin No. 11).

II. ADOPTION OF FORESTRY POLICY.

In 1945, the following General Forestry Policy was, as a result of the above report, formally adopted by the Government of Dominica.—

(a) *Long-Term Forestry Policy.*

Scientific Survey: To assist in carrying out, as soon as possible in collaboration with other Departments concerned, a complete scientific survey of Dominica, including topographical, cadestral, soil, botanical and agronomic surveys, in order to provide the necessary data for land planning;

Land Allocation: On completion of the scientific survey, to draw up, in collaboration with other Departments and interests concerned, a complete land allocation and conservation policy for Dominica;

Forest Reservations: To effect the permanent reservation as forest of all areas which may be allotted to forestry under the land allocation policy;

Forest Management: To manage these Forest Reserves in such a manner that, while still fulfilling their protective functions in the interests of soil and Water conservation, they may at the same time provide the maximum out-turn of forest produce on the basis of a sustained yield;

Utilisation: To effect the fullest possible utilisation of the products of the forests, subject to the requirements of forest management, and to encourage the most economical use of lumber;

Research: To carry out such experimental work as may be necessary to implement the forest policy;

Education: To educate and train the subordinate forest staff, and educate all classes of the community to an understanding of the benefits and value to the community of forests managed on a sound basis;

Private Forestry: To encourage and assist, in every possible way, the owners of private forests, woodlands and plantations, so that these may be managed in the most economical manner, and to prevent wastage and destruction of forests resources on private lands;

Protection of Nature: To include within the scope of Forestry projects, for the introduction and protection of game animals, birds and fish, and for the preservation of localities of natural scenic or scientific interest.

(b) *Short-Term Forestry Policy.*

Forest Conservation: Pending the allocation of Forest reserves under the land allocation policy, to preserve from spoilation all forests owned by the Crown, and to bring squatting and the felling of timber under control;

Forest Management: Pending completion of the land policy, to permit the cultivation of Crown Lands, and the cutting of timber under licence, with collection of fees and royalties under such management as will prevent depletion of resources;

Staff: To secure the appointment of a field staff adequate to undertake the execution of the forestry policy;

Land Usage: To co-operate with all other land interests in the achievement of optimum land usage and in all projects for soil and water conservation and the prevention of erosion;

Utilisation:	To begin to implement immediately, as far as it is possible, the long-term forestry policy under these heads.
Research:	
Education:	
Private Forestry:	
Protection of Nature:	

III. ENACTMENT OF LEGISLATION.

In order to enable the above policy to be put into effect, the Forest, Soil and Water Conservation Ordinance, 1946, was enacted and became law on the 31st December, 1946.

IV. OUTLINE OF PROPOSED SCHEME.

In their comments on the preparation of the Ten-Year Agricultural Sketch Plan for Dominica, the Director of Agriculture, Windward Islands, and the Agricultural Adviser to the Comptroller have subscribed to the following:—

"It is recognised that the preparation of a land utilisation plan is the logical first "step in any approach to the problem of Agricultural Development. In the ab- "sence, however, of detailed soil and forestry surveys it is impossible to do other- "wise than to make a general statement to the effect that certain areas must be "permanently closed to both man and domestic beast in the interest of the general "protection of land and the water resources of the island. We accordingly re- "commend that certain areas should be immediately closed and declared permanent "forest reserves. The maintenance of such reserves will call for the establishment "of a forest protection service, and we have therefore provided for the staff and "other essential requirements. We consider that such a service should be the per- "manent obligation of the Government of Dominica and we accordingly recommend "that all recurrent charges should be included in the local budget. It will be noted "from the schedule of expenditure, that no provision is made for Sylvicultural work "and general investigation. We have reluctantly arrived at the conclusion that "funds will not be available for such work. Briefly, therefore, our recommenda- "tion is the establishment of forest reserves to permit natural re-forestation in "denuded areas, the protection of existing forest and the provision of necessary "staff to see that these areas are maintained as permanent reserves. We have, "however, included capital charges, such as the constitution of forest reserves, "and the construction of forest rest houses under the Colonial Development and "Welfare allocation."

APPENDIX VI.

SCHEME D 1052.

DEVELOPMENT AND MAINTENANCE OF AGRICULTURAL STATIONS.

I. Introduction.

Provision for the establishment of Demonstration and Investigational Centres (Agricultural Stations) was made in Scheme D 53—"Agricultural Development Dominica." This scheme was launched in 1943, and has been extended to the 30th of September, 1948.

In recording progress to date, five Agricultural Stations have been established and are being operated on a preliminary basis. These stations are being developed to render facilities for the demonstration of soil conservation practices, improved methods of production of various crops, plant propagation centres and as stud centres.

When the agricultural section of the Sketch Plan was under consideration, the following statement was subscribed to by the Agricultural Adviser to the Comptroller and the Director of Agriculture for the Windward Islands:—

"It is at present too soon to express an opinion on the value of these stations, "but we consider that they should be fully developed within the limits of the fin- "ancial resources of the Colony and in accordance with an approved plan, and that "their influence on agricultural development and practices should be carefully ob- "served over a longer period of time. It is believed that they can make an appre- "ciable contribution to the economy of the Island by the provision of plant material, "stud centre service, and the results of investigational work and trials, but their "real value as educational centres can only be assessed at a much later date."

II. OUTLINE OF PROPOSED SCHEME.

It is proposed that the Scheme should be so designed as to satisfy the requirement that it must fit into the general plan of Agricultural Development for Dominica. It is now intended to classify these stations into two groups :—

(*a*) Major Stations ;

(*b*) Secondary Stations.

Two of the five existing stations, *i.e.* Londonderry and Grand Bay, will be developed as Major Stations ; the remaining three—Portsmouth, Colihaut and La Plaine, will be developed as Secondary Stations.

It is estimated that the following acreages will be developed in the course of implementing the scheme :—

(*a*) *Major Stations* :

(i)	Investigation and demonstration	.. 8 acres.
(ii)	Livestock (cultivation of fodder grasses and forage crops	.. 7 acres.
(iii)	Plant and animal distribution	.. 5 acres.
		20 acres.

(*b*) *Secondary Stations:*

(i)	Investigation and demonstration	.. 2 acres.
(ii)	Livestock (cultivation of fodder grasses and forage crops)	.. 5 acres.
(iii)	Plant and animal distribution	.. 5 acres.
		12 acres.

The Major Stations will be developed to provide the following services :—

A. *Investigational and Demonsiration Work.*

This will include

(i) Experimental work on mixed farming including the operation of Experimental Small Holdings. Little is known of mixed farming in the tropics, and a good deal of experimental work will be required to determine a permanent system. This problem is particularly difficult on the steep slopes which cannot be avoided in Dominica ;

(ii) Investigation of soil conservation measures and of contour cultivation methods ;

(iii) The introduction, multiplication, and, if ecologically suitable, the trial of new economic crops ;

(iv) The investigation and demonstration of vegetable production ;

(v) The growth of suitable species of fodder crops and feeding stuffs, and the preparation of locally produced livestock rations ;

(vi) The preparation of pen-manure, compost and silage;

(vii) The observation and preliminary comparison of crop varieties;

(viii) Storage trials;

(ix) Manurial trials.

B. *Livestock Work.*

(i) Operation of Stud Centres;

(ii) Establishment and maintenance of small herds of cattle.

The maintenance of such herds will permit essential preliminary investigation work in regard to animal health and locally grown feeding stuffs, as well as demonstration of methods of clean milk production. In addition, the staff of the department will acquire experience in the handling of stock.

C. *Plant and Animal Distribution.*

(i) The maintenance of plant nurseries for the distribution of improved planting material;

(ii) Multiplication and distribution of animals, especially small stock and poultry.

The *SECONDARY STATIONS* will be developed to provide

A. *Invistigational and Demonstration Work.*

(i) The preparation of pen-manure, compost and silage;

(ii) The introduction, multiplication, and, if ecologically suitable, the trial of new economic crops;

(iii) The investigation and demonstration of vegetable production.

B. *Livestock Work.*

Operation of Stud Centres.

C. *Plant and Animal Distribution.*

(i) The maintenance of plant nurseries for the distribution of improved planting material;

(ii) Multiplication and distribution of animals, especially small stock and poultry.

RAINFALL RETURNS, DOMINICA, 1948.

STATIONS.		JAN.	FEB.	MARCH	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPT.	OCTOBER	NOV.	DEC.	TOTALS.
1. Botanic Gardens	L.	5.95	4.54	1.48	2.11	4.60	6.12	12.84	8.41	8.67	8.40	9.37	6.97	79.46
2. Bath Estate	L.	6.75	4.78	3.06	2.09	6.38	10.02	18.52	12.08	11.93	10.76	10.95	7.82	105.14
3. Blenheim	W.	4.32	2.49	7.77	4.39	6.95	10.44	11.98	6.65	8.48	21.07	13.44	3.77	101.75
4. Canefield Estate	L.	11.42	7.25	2.50	1.00	6.54	10.26	17.74	17.60	6.16	3.28	10.11	7.42	101.28
5. Clarke Hall Estate	L.	5.95	4.85	3.05	2.60	8.02	11.40	22.54	12.40	10.85	17.85	15.32	9.70	124.53
6. Colihaut Agri. Station	L.	3.28	3.94	2.13	1.92	3.61	7.03	10.91	6.91	9.69	7.92	7.91	3 05	68.30
7. Delices	W.	6.51	3.62	7.52	5.98	5.49	10.60	12.74	13.32	11.02	27.04	24.94	4.82	133.60
8. Experiment Station	L.	6.98	6.03	1.99	2.37	8.00	8.53	23 19	13.25	10.94	11 02	15.46	12.66	120.42
9. Grand Bay Agri. Station	W.	8.92	5.81	5.07	3.68	6.64	11.66	15.46	12.08	21.94	9.15	22.67	8.15	130.84
10. La Plaine Agri. Station	W.	4.37	2.96	7.49	5.98	7.79	12.19	12.72	13.91	9.20	22.37	17.52	4.74	121.24
11. L'Imprevue	I.	6.80	5.46	2.80	2.81	9.40	13.12	21.78	15.59	12.87	13.23	14.81	12.05	130.72
12. Layou Park Estate	I.	10.12	7.78	11.50	2.85	19.07	21.40	36.72	19.89	13.76	20.10	28.50	13.02	204.71
13. Londonderry Agri. Station	W.	5.58	3.32	6.31	4.17	6.63	13.13	11.48	10.56	23.09	27.91	29.06	3.17	144.41
14. Moore Park	I.	4.50	2.63	7.79	5.01	7.10	10.95	12.17	7.09	8.03	21.09	13.13	3.56	103.05
15. Picard	L.	6.03	6.63	6.79	2.95	5.94	8.71	14.84	12.05	11.80	15.78	10.15	6.16	107.83
16. Portsmouth Agri. Station	L.	6.64	6.75	6.83	3.81	5.70	11.03	16.53	9.69	9.57	19.50	11.62	5.38	113.05
17. Pte. Mulâtre	W.	6.11	3.88	8.16	4.13	4.56	12.16	10.30	16.09	6.76	20.64	25.88	4.65	123.32
18. Riversdale	I.	16.39	8.74	16.97	11.29	19.44	26.88	32.33	19.19	25.68	24.36	36.64	12.47	250.38
19. Ridgefield	I.	9.22	7.51	4.96	3.51	10.52	15.26	27.02	15.15	14.53	12.57	23.42	10.33	154.00
20. Stowe	W.	7.42	4.12	6.18	4.75	5 54	12.37	14.13	10.52	8.93	20 85	25.79	6.90	127.50
21. Sylvania	I.	12.50	7.50	6.40	5.90	15.70	25.60	42.10	28.20	21.40	24 50	24.50	15.30	230.00
22. Shawford	I.	8.63	11.03	11.34	7.35	19.86	23.83	34.91	29.90	27.48	18.87	27.19	11.89	232.28

Mean Rainfall 22 Stations ... ... 136.72 inches.
,, ,, 8 Leeward Stations... ... 102.50 ,,
,, ,, 7 Windward ,, ... 126.09 ,,
,, ,, 7 Inland ,, ... 186.41 ,,

RAINFALL AT THE BOTANIC GARDENS, DOMINICA, 1929–1948.

	1929	1930.	1931	1932	1933	1934.	1935.	1936	1937.	1938.	1939.	1940.	1941	1942	1943.	1944.	1945	1946	1947.	1948	Monthly Mean Rainfall.
January ...	5.18	10.65	1 47	5.47	7.30	4 81	2 37	3 46	13.24	6.73	4.13	1.67	5.00	4 16	5.70	4 24	1.76	6 12	9 23	5 95	5.43
February.	3.13	2 07	1.05	1.57	2.13	1.70	1.59	2 50	3.40	1.43	2 84	1 45	.47	2.25	1.01	6.89	9.14	5 80	2.07	4 54	2.85
March ...	7.36	3.89	.59	1 56	2.37	3.36	6.90	.82	1.34	2 69	4.38	2.16	2 05	.97	5.46	1 89	1.29	1.47	2 75	1 48	2.74
April ...	1.27	5 01	.51	2.33	2.03	2 91	1.45	3.04	2.61	.72	5 62	1.00	2.82	7.14	3 34	1 65	1.11	2.88	2.61	2 11	2.61
May ...	2.80	2 21	1 70	5.07	2.26	3.82	4 27	2.34	1.48	1.41	.86	1.34	5.53	4.86	3.20	8 55	1 95	3.18	5.53	4.60	3 35
June ...	10.87	7 32	9 98	10.72	7 05	2 59	5.04	6.47	6.57	19.56	4.90	4 65	5.39	9.18	6.25	7 20	6 21	7.04	4 67	6.12	7 39
July ...	13.13	7 90	18 45	8.05	12 30	9.54	13.47	18 48	5 60	13.44	7 18	7.97	13 94	13.86	6.10	12 98	11.17	6.15	11.73	12 84	11 21
August ..	12.55	6.76	17.44	7 23	7.94	7.61	8.87	10.38	6.20	27.92	6.96	6.96	7.52	11.13	10.93	9.19	9.05	9 44	5.73	8.41	9.41
September.	5 63	14.66	13.51	6.13	11.51	4.08	12.93	11.14	4 40	10.77	6.52	2.55	10 62	11.76	7.99	5.74	15 43	8.34	8.09	8.67	9.02
October ...	12.19	3 15	9.71	6.72	9.26	3.89	5 43	7.65	3.74	4.48	15.42	9.00	6.98	5.91	9.69	6 39	10 90	4.40	4 02	8 40	7.36
November.	14 39	5 51	11 90	13.83	11 04	5.58	3 39	12.14	20 85	12.34	5.91	19.97	12.45	24 82	5.38	9.59	2.98	13.91	7.10	9.37	10 67
December.	8 48	3 66	7 53	5 21	7.03	9.46	6.24	10.84	5.43	6.14	3.57	9.96	4.81	8.47	6.60	6 81	4.33	4.34	8.67	6.97	6.73
Totals .	96 98	72.79	93.87	78.89	82.22	59.95	71 95	89.26	74 86	107.63	68.29	59.68	77.58	104.51	71.65	81.12	75.32	73 07	72.20	79.46	–

Average 20 years = 78.78 inches.

METEOROLOGICAL SUMMARY, BOTANIC GARDENS, DOMINICA, 1948.

Year. 1948.	PRESSURE. *Corrected & reduced to 32° F., M.S.L.*				TEMPERATURE.								RELATIVE HUMIDITY.		RAIN-FALL.
	Highest.	Lowest.	Means.		Absolute.		Mean Values.						Means.		Amount.
					Max.	Min.	Max.	Min.	Dry Bulb.		Wet Bulb.				
	IN.	IN.	9 a.m.	3 p.m.	—	—	—	—	9 a.m	3 p.m.	9 a.m.	3 p.m.	9 a.m.	3 p.m.	—
	IN.	IN.	IN.	IN.	°F	°F	°F	°F	°F	°F	°F	°F	%	%	IN.
January ...	30 06	29.84	29.99	29.90	87	66	85	69	76	83	73	76	76	69	5.95
February ..	30.11	29 87	30.01	29.94	87	64	84	68	75	82	71	73	81	61	4.54
March ..	30.10	29.84	30.01	29.95	89	65	84	68	77	82	70	73	70	60	1.48
April ...	30.08	29.85	29.98	29.91	91	67	85	70	79	83	72	74	70	61	2.11
May ..	30.03	29.85	29.96	29.92	89	71	87	73	82	84	75	76	72	63	4.60
June ...	30.08	29.91	30.00	29.94	91	72	89	74	83	87	77	77	73	58	6.12
July ...	30.05	29.91	29.97	29.94	89	73	87	74	81	84	76	77	80	69	12.84
August ...	30.01	29.84	29.95	29.90	91	72	88	74	81	86	77	79	85	67	6.41
September ..	30.01	29.82	29.93	28.86	91	71	88	73	82	86	77	78	78	64	8.67
October ...	29.98	29.81	29.97	29.85	90	71	87	73	81	85	76	78	77	67	8.40
November...	30.05	29.81	29.93	29.86	89	70	86	72	79	84	76	75	81	67	9.37
December...	30 06	29 87	29.99	29.92	86	67	85	69	76	82	73	74	84	64	6.97
Year Average ..	30.05	29.85	29.98	29.91	89	69	85	71	79	84	74	76	77	64	6 46

Highest Barometer Reading	30.11 in. on 12th February.
Lowest ,, ,,	29.81 ,, ,, 22nd October, 4th and 23rd November.
Highest Maximum Temperature	91°F on 27th April, 2nd, 3rd, 4th, 9th and 11th June.
Lowest Minimum Temperature	64°F on 26th, 27th and 28th February.
Greatest Rainfall in 24 hours	2.70 ins. on 16th October.